UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

DATE MAILED: 12/23/2009

# NOTICE OF ALLOWANCE AND FEE(S) DUE

24267 7590 1223/2009 CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON. MA 02210 EXAMINER
HUSSAIN, TAUQIR
ART UNIT PAPER NUMBER
2452

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/622,558      | 07/18/2003  | Abhijeet Gole        | 112056-0099         | 4806             |

TITLE OF INVENTION: SYSTEM AND METHOD FOR RELIABLE PEER COMMUNICATION IN A CLUSTERED STORAGE SYSTEM

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO           | \$1510        | \$300               | \$0                  | \$1810           | 03/23/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This<br>appropriate. All further<br>indicated unless correcte<br>maintenance fee notificat  | form should be used to<br>correspondence including<br>d below or directed oth<br>ions.  | or transmitting<br>ig the Patent, ad<br>ierwise in Block   | the ISSI<br>Ivance o<br>: 1, by (                       | JE FEE and PUBLICAT<br>rders and notification of<br>a) specifying a new corre  | TON FEE (if requiremaintenance fees very spondence address;  | ired). I<br>vill be<br>and/or                | Blocks 1 through 5 s<br>mailed to the current<br>(b) indicating a sepa  | hould be<br>correspondante "FEI                                  | completed where<br>ndence address as<br>E ADDRESS" for  |
|---|---|--|---|--|--|--|---|--|---|
| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)  |   |  |   | Fee  | Note: A certificate of mailing can only be used for domestic mailings of the<br>Fee(s) Transmittal. This certificate cannot be used for any other accompanying<br>papers. Each additional paper, such as an assignment or formal drawing, must<br>have its own certificate of mailing or transmission. |  |   |  |   |
| 24267 7590 1223/2009<br>CESARI AND MCKENNA, LLP<br>88 BLACK FALCON AVENUE<br>BOSTON, MA O2210   |   |  |   | I b  | Cer  | tificate                                     | of Mailing or Trans<br>s) Transmittal is being<br>ficient postage for fir<br>ISSUE FEE address<br>I) 273-2885, on the d   | deposite   | d with the United<br>ail in an envelope<br>r being facsimile<br>ted below.                            |
|   |   |  |   |  |  |  |   |  | (Depositor's name)  |
|   |   |  |   |  |  |  |   |  | (Signature)   |
|   |   |  |   | L  |  |  |   |  | (Date)  |
| APPLICATION NO.   | FILING DATE   |  |   | FIRST NAMED INVENTOR   |  | ATTORNEY DOCKET NO. CONFIRMA                 |   | RMATION NO.  |   |
| 10/622,558  | 07/18/2003  |  |   | Abhijeet Gole  |  |  | 112056-0099   |  | 4806  |
|   |   |  |   | ER COMMUNICATION   |  |  |   |  |   |
| APPLN, TYPE   | SMALL ENTITY  | ISSUE FEE I  | DUE   | PUBLICATION FEE DUE  | PREV. PAID ISSU  | E FEE  | TOTAL FEE(S) DUE  | _  | DATE DUE  |
| nonprovisional  | NO  | \$1510   |   | \$300  | \$0  |  | \$1810  |  | 03/23/2010  |
| EXAM  | INER  | ART UNI  | Т   | CLASS-SUBCLASS   | ]  |  |   |  |   |
| HUSSAIN,  |   | 2452   |   | 709-224000   |  |  |   |  |   |
| "Fee Address" indi<br>PTO/SB/47; Rev 03-0<br>Number is required.  3. ASSIGNEE NAME A  | ondence address (or Cha<br>//122) attached.<br>cation (or "Fee Address<br>2 or more recent) attach<br>ND RESIDENCE DAT/<br>ess an assignee is ident<br>n in 37 CFR 3.11. Comp | nge of Corresponding of Corresponding of Corresponding of the Correspond | ndence<br>stomer<br>ED ON                               | 2. For printing on the (I) the names of up to or agents OR, alternat (2) the name of a sing registered attorney or 2 registered patent att listed, no name will be THE PATENT (print or ty data will appear on the IT a substitute for filing ar (B) RESIDENCE: (CIT | o 3 registered pater<br>wely,<br>le firm (having as a<br>agent) and the nam<br>orneys or agents. If<br>printed.  pe)  patent. If an assign<br>assignment.  | memb<br>es of u<br>no nan                    | er a 2p to p to e is 3  | ocument !  | has been filed for  |
| Please check the appropri   | ate assignee category or  | categories (will   |   | rinted on the patent):   | Individual 🗖 Co  | orporati                                     | on or other private gr  |  |   |
| 4a. The following fee(s) a  Issue Fee Publication Fee (N Advance Order - #  | o small entity discount p   | permitted)   | 4   | b. Payment of Fee(s): (Ple   | rd. Form PTO-2038<br>v authorized to cha   | is atta                                      | ched.<br>required fee(s), any de  | ficiency.  |   |
|   | SMALL ENTITY state  | is. See 37 CFR I   |   | ☐ b. Applicant is no lo  |  |  |   |  |   |
| NOTE: The Issue Fee and<br>interest as shown by the r   | I Publication Fee (if req<br>ecords of the United Sta   | uired) will not be<br>tes Patent and Ti  | accepte<br>rademark                                     | d from anyone other than<br>Office.  | the applicant; a regi  | stered                                       | attorney or agent; or the   | ne assigne   | e or other party in   |
| Authorized Signature  |   |  |   |  | Date   |  |   |  |   |
| Typed or printed name   |   |  |   |  | Registration N   |  |   |  |   |
| This collection of informan application. Confident submitting the completed this form and/or suggestit Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C<br>iality is governed by 35<br>application form to the<br>ons for reducing this bu-<br>irginia 22313-1450. DC<br>13-1450.                           | FR 1.311. The in<br>U.S.C. 122 and<br>USPTO. Time<br>rden, should be so<br>O NOT SEND FE   | nformati<br>37 CFR<br>will vary<br>sent to th<br>EES OR | on is required to obtain or<br>1.14. This collection is ear<br>depending upon the indi<br>the Chief Information Offic<br>COMPLETED FORMS T   | retain a benefit by t<br>stimated to take 12 i<br>vidual case. Any co<br>er, U.S. Patent and<br>O THIS ADDRESS   | he pub<br>minute<br>mmen<br>Trader<br>S. SEN | lic which is to file (and<br>to complete, including<br>son the amount of times of the order<br>of the order of the ord | I by the U<br>ig gatheri<br>ne you re<br>artment o<br>for Patent | sPTO to process)<br>ng, preparing, and<br>quire to complete<br>f Commerce, P.O.<br>ts, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

| APPLICATION NO.        | FILING DATE           | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |  |  |
|------------------------|-----------------------|----------------------|---------------------|------------------|--|--|--|
| 10/622,558             | 07/18/2003            | Abhijeet Gole        | 112056-0099         | 4806             |  |  |  |
| 24267                  | 24267 7590 12/23/2009 |                      |                     | EXAMINER         |  |  |  |
| CESARI AND             | MCKENNA, LLP          | HUSSAIN, TAUQIR      |                     |                  |  |  |  |
| 88 BLACK FALCON AVENUE |                       |                      | ART UNIT            | PAPER NUMBER     |  |  |  |
| BOSTON, MA 02210       |                       |                      | 2452                |                  |  |  |  |

DATE MAILED: 12/23/2009

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 632 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 632 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

| Application No. | Applicant(s) |  |  |
|-----------------|--------------|--|--|
| 10/622,558      | GOLE ET AL.  |  |  |
| Examiner        | Art Unit     |  |  |
| TALIOIR HUSSAIN | 2452         |  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 11/30/2009. 2. The allowed claim(s) is/are 14-21, 28 and 29 which are renumbered as 1-10. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)  $\square$  All b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. \_\_ 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

| -    | ,,,,,,,, | (3) |   |
|------|----------|-----|---|
| 1. 🔲 | Notice   | of  | ŀ |

/HT/

- References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date

| i. 🗆 | Examiner's Comment Regarding | Requirement for Deposi |
|------|------------------------------|------------------------|
|      | of Biological Material       |                        |

5. Notice of Informal Patent Application

Interview Summary (PTO-413), Paper No./Mail Date

7. 

Examiner's Amendment/Comment

8. X Examiner's Statement of Reasons for Allowance

9. ☐ Other . /THU NGUYEN/

Supervisory Patent Examiner, Art Unit 2452

Patent Examiner, Art Unit 2452

Application/Control Number: 10/622,558 Page 2

Art Unit: 2452

## DETAILED ACTION

## Response to Amendment

This office action is in response to amendment /reconsideration filed on
 11/30/2009, the amendment/reconsideration has been considered. Claims, 1-13 and
 22-27 and 30-38 have been canceled, therefore claims 14-21 and 28-29 are pending for examination, the rejection cited as stated below.

## Terminal Disclaimer

 The terminal disclaimer filed on 12/08/2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent No: 7,593,996 has been reviewed and is accepted. The terminal disclaimer has been recorded.

## Response to Arguments

- Applicant's arguments and amendments, see remarks, pages 6-10, filed 11/30/2009, with respect to 14-21, 28 and 29 have been fully considered and are persuasive. The previous rejection has been withdrawn.
- 4. Claims 14-21, 28 and 29 has been allowed.

## Reasons for Allowance

5. Prior art individually or in combination fails to teach, among other things the combination of "passing a set of cluster connection manager client information to the cluster partner, wherein the set of cluster connection manager client information includes at least one virtual interface and any memory requirements for a cluster

Application/Control Number: 10/622,558

Art Unit: 2452

manager client" and "creating a set of communication ports using the set of cluster connection manager client information, wherein the at least one virtual interface connection allows remote direct memory access (RDMA) operations that allow the cluster connection manager executing on the first server to directly access memory regions of the cluster partner operating on the second server before a storage operating system executing on the cluster partner is fully active, the RDMA read operation bypassing the operating system" and "alerting the cluster partner of a ready status" and "alerting a set of cluster connection manager clients that the cluster partner is in a ready state"

These limitations, in conjunction with the other limitations in the independent claims 14, 28 and 29 are not specifically disclosed or remotely suggested in the prior art of the record or the cited references.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAUQIR HUSSAIN whose telephone number is (571)270-1247. The examiner can normally be reached on 7:30 AM to 5:00 PM.

Art Unit: 2452

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571 272 6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. H./ Examiner, Art Unit 2452

/THU NGUYEN/ Supervisory Patent Examiner, Art Unit 2452